

REMARKS

Claims 1-5 were examined and reported in the Office Action. Claims 1-3 are rejected. Claims 1-3 are amended. Claims 1-5 remain. Applicant affirms the election to prosecute the invention of group I including claims 1-3.

Applicant requests reconsideration of the application in view of the following remarks.

I. Claims Rejected Under 35 U.S.C. 102(b)

It is asserted in the Office Action that claims 1-2 are rejected under 35 U.S.C. § 102(b), as being anticipated by Japanese Patent JP 58-6257 issued to Wakita et al. ("JP 58-6257"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2131,

'[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference.' (Verdegaal Bros. v. Union Oil Co. of California, 814 F.2d 628, 631, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987)). 'The identical invention must be shown in as complete detail as is contained in the ... claim.' (Richardson v. Suzuki Motor Co., 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989)). The elements must be arranged as required by the claim, but this is not an *ipsissimis verbis* test, *i.e.*, identity of terminology is not required. (In re Bond, 910 F.2d 831, 15 USPQ2d 1566 (Fed. Cir. 1990)).

Applicant's amended claim 1 contains the limitations of

An apparatus comprising: a rotor for a centrifugal separator, the rotor having storing holes each for storing a sample tube with a cap that are formed to be inclined with respect to an axis such that an open end of each of the storing holes is directed toward the axis, wherein contact portions each coming into contact with an outer surface of the cap of the sample tube are formed in open end sides of the storing holes, and the contact portions respectively have notches at portions thereof which face the axis.

It is asserted in the Office Action that Figs. 1-3 and the abstract of JP 58-6257 illustrate (at caps 92a) sample tubes 92, notches 66a, and storing holes 67. Applicant notes, however, that neither Applicant's Figs. 1-3 nor JP 58-6257 Figs. 1-3 illustrate these reference numerals.

JP 58-6257 is owned by Applicant, and relates to the prior art asserted in Applicant's specification. Applicant's claimed invention followed the prior art of making cost reductions, and was conceived in order to cope with the sample tube made of plastic, as disclosed by the prior art asserted in Applicant's specification. Although JP 58-6257 discloses that a metal or a plastic is used for a capillary tube or a settling tube holding plate 32, JP 58-6257 does not teach, disclose or suggest the material in which the capillary tube or the settling tube is made of. Applicant presents the translation of the official gazette of JP58-6257, p.303, right column, line 3 - p.304, upper left column, line 4; p.306, upper left column, line 19 - upper right column, line 9. as follows:

The centrifugal machine for blood separation and the centrifugal machine for hematocrit value measurement are frequently used every day in the hospital. A centrifugal machine, which can be used for both blood separation and hematocrit value measurement is known by the official gazette of Utility Model Publication No. Sho 38-16982 and the official gazette of Utility Model Publication No. Sho 45-27172. This invention relates to the improvement of the rotor of the centrifugal machine for the double purpose type, and it is aimed at a low cost and preventing the user from making a mistake in the use.

As for the conventional rotor of the combined-use type of the settling tube and the capillary tube, as shown in Fig. 1 -- Fig. 4, the disc-shaped rotor main body 11 is inserted with the motor shaft 12 through its central aperture, and it is fixed to the motor shaft 12 with a knob 13. The capillary tube retaining groove 14 is formed on the upper surface of the rotor main body 11 at the interval of equal angles radially to the rotor shaft 12, and, in addition, in a peripheral portion, a ring-shaped supporting plate 15 is formed in one body, and a protection layer 16 of the rubber-like elastic material is installed on the inner surface of the supporting plate 15. In addition, the hole 17 for the settling tube is formed angularly downwardly to the rotor shaft at the intervals of equal

angles. On the lower surface of the rotor main body 11, the windshield plate 18 as shown in Fig. 3 is rotatably attached centering on the rotor shaft 12, and the circular hole 19 which can communicate with the hole 17 for the settling tube are opened in the windshield plate 18. The rotor of this invention has the following features. A bottom plate 31, a cover 33, and the settling tube holding plate 55 can be molded by the press processing of the thin metal plate, and the capillary tube supporting plate 32 can be molded with the material that is easily molded such as plastics. The bottom plate 31, the settling tube supporting plate 55, and pot 33 can be made as the molded goods, also. In view of those points, the moment of inertia of the rotor itself can be made significantly small, and therefore, in order to make it rotate to a predetermined rotating speed by the same acceleration time as the conventional rotor, a motor having a small driving force is sufficient, and a low-priced motor can be used.

Applicant's claimed invention solves the problem relating to the portion that projects from an accommodation hole of the rotor with the upper end of the tube becoming slightly larger than the diameter of the lower end portion when the plastic sample tube is used. Additionally, the cap is placed on the upper end of the tube so the contents may not escape with the centrifugal force during rotation. In this case, there was a possibility that the upper end (the portion of a neck) of the sample tube, which projected at the time of the rotation, got squashed like a chain double-dashed line of FIG. 7 and finally was torn to pieces and scattered.

Applicant's claim 1 asserts the contact portion that contacts the outer surface of the cap portion of the sample tube at the open end side of the storing hole of the rotor, and the notch was provided in the portion facing the rotor shaft line in this contact portion. Therefore, JP 58-6257 and Applicant's claimed invention are completely different from each other.

Further, Applicant's claimed invention is distinguishable from JP 58-6257 in the action mechanism as Applicant's claim 1 asserts that a surface of a wall is made that opposes about half around the head portion of the sample container. This limitation prevents the head portion (cap) of the sample tube from being deformed by the

centrifugal force of its own weight. JP 58-6257, however, does not teach, disclose or suggest supporting the head of the sample container 22.

Moreover, the rotor structure including 55, 56, and 23 of JP58-6257 is a basic in structure and is a so-called "angle" type rotor. This is the same structure as the prior art shown by Fig. 7 of Applicant's disclosure.

Therefore, JP58-6257 does not teach, disclose or suggest

a rotor for a centrifugal separator, the rotor having storing holes each for storing a sample tube with a cap that are formed to be inclined with respect to an axis such that an open end of each of the storing holes is directed toward the axis, wherein contact portions each coming into contact with an outer surface of the cap of the sample tube are formed in open end sides of the storing holes, and the contact portions respectively have notches at portions thereof which face the axis.

Since JP58-6257 does not disclose, teach or suggest all of Applicant's amended claim 1 limitations, Applicant respectfully asserts that a *prima facie* rejection under 35 U.S.C. § 102(b) has not been adequately set forth relative to JP58-6257. Thus, Applicant's amended claim 1 is not anticipated by JP58-6257. Additionally, the claim that directly depends on amended claim 1, namely claim 2 is also not anticipated by JP58-6257 for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 102(b) rejections for claims 1-2 are respectfully requested.

II. Claims Rejected Under 35 U.S.C. 103(a)

It is asserted in the Office Action that claim 3 is rejected in the Office Action under 35 U.S.C. § 103(a), as being unpatentable over JP 58-6257 in view of U. S. Patent No. 4,832,678 issued to Sheeran ("Sheeran"). Applicant respectfully traverses the aforementioned rejection for the following reasons.

According to MPEP §2142

[t]o establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure." (In re Vaeck, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)).

Further, according to MPEP §2143.03,

[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. (In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). *All words in a claim must be considered* in judging the patentability of that claim against the prior art. (In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970), emphasis added.)

Applicant's amended claim 3 directly depends on amended claim 1. Applicant has addressed JP58-6257 regarding amended claim 1 above in section I.

As asserted above, JP58-6257 does not teach, disclose or suggest

a rotor for a centrifugal separator, the rotor having storing holes each for storing a sample tube with a cap that are formed to be inclined with respect to an axis such that an open end of each of the storing holes is directed toward the axis, wherein contact portions each coming into contact with an outer surface of the cap of the sample tube are formed in open end sides of the storing holes, and the contact portions respectively have notches at portions thereof which face the axis.

Sheeran discloses a tube adapter for a centrifuge rotor is that has circumferentially extending latching surfaces that are engageable by the claws of a removal tool to extract the adapter from the recess of the rotor. And, the latching

surfaces may be defined by a continuous groove or by a pair of groove segments formed on the body of the adapter. Although the Office Action asserts that Sheeran is similar to Fig. 5 of Applicant's claimed invention application, Applicant's claimed structure is distinguishable from Sheeran.

With Applicant's claimed invention, the tube of Fig. 5A is inserted in the adapter of Fig. 5, as shown in Fig. 4 and Fig. 5. In order to prevent the head of the sample container from becoming deformed at the time of the centrifugal action, as shown in Fig. 9, the adapter surrounds at least more than the head semicircle of the container, and therefore, prevents deformation.

Additionally, Applicant's claimed invention includes notch 46 for taking out the tube. Although Sheeran presses down the lip portion 40F of the tube in Fig. 7, a surface of a wall that opposes the lip portion does not exist, and there is no portion equivalent to Applicant's notch 46 for taking out the tube.

Sheeran does not teach, disclose or suggest Applicant's claim 1 limitations of

the rotor having storing holes each for storing a sample tube with a cap that are formed to be inclined with respect to an axis such that an open end of each of the storing holes is directed toward the axis, wherein contact portions each coming into contact with an outer surface of the cap of the sample tube are formed in open end sides of the storing holes, and the contact portions respectively have notches at portions thereof which face the axis.

And, Sheeran does not teach, disclose or suggest the limitations of amended claim 3 of "a contact portion coming into contact with an outer surface of a cap of the sample tube is formed in an open end side of the holding hole, the contact portion has a notch at a portion thereof..."

Therefore, even if JP58-6257 were combined with Sheeran, the resulting invention would still not include all of Applicant's claimed limitations. Moreover, by viewing the disclosures of JP58-6257 and Sheeran, one can not jump to the conclusion of obviousness without impermissible hindsight.

According to MPEP 2142,

[t]o reach a proper determination under 35 U.S.C. 103, the examiner must step backward in time and into the shoes worn by the hypothetical ‘person of ordinary skill in the art’ when the invention was unknown and just before it was made. In view of all factual information, the examiner must then make a determination whether the claimed invention ‘as a whole’ would have been obvious at that time to that person. Knowledge of applicant’s disclosure must be put aside in reaching this determination, yet kept in mind in order to determine the ‘differences,’ conduct the search and evaluate the ‘subject matter as a whole’ of the invention. The tendency to resort to ‘hindsight’ based upon applicant’s disclosure is often difficult to avoid due to the very nature of the examination process. However, impermissible hindsight must be avoided and the legal conclusion must be reached on the basis of the facts gleaned from the prior art.

Applicant submits that without first reviewing Applicant’s disclosure, no thought, whatsoever, would have been made to include a rotor having storing holes each for storing a sample tube with a cap that are formed to be inclined with respect to an axis such that an open end of each of the storing holes is directed toward the axis, wherein contact portions each coming into contact with an outer surface of the cap of the sample tube are formed in open end sides of the storing holes, and the contact portions respectively have notches at portions thereof which face the axis.

Neither JP58-6257, Sheeran, nor the combination of the two, teach, disclose or suggest the limitations contained in Applicant’s amended claim 1, as listed above. Since neither JP58-6257, Sheeran, nor the combination of the two, teach, disclose or suggest all the limitations of Applicant’s amended claim 1, as listed above, Applicant’s amended claim 1 is not obvious over JP58-6257 in view of Sheeran since a *prima facie* case of obviousness has not been met under MPEP §2142. Additionally, the claim that directly depends from amended claim 1, namely claim 2, would also not be obvious over JP58-6257 in view of Sheeran for the same reason.

Accordingly, withdrawal of the 35 U.S.C. § 103(a) rejection for claim 3 is respectfully requested.

CONCLUSION

In view of the foregoing, it is submitted that claims 1-5 patentably define the subject invention over the cited references of record, and are in condition for allowance and such action is earnestly solicited at the earliest possible date. If the Examiner believes a telephone conference would be useful in moving the case forward, he is encouraged to contact the undersigned at (310) 207-3800.

If necessary, the Commissioner is hereby authorized in this, concurrent and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§1.16 or 1.17, particularly, extension of time fees.

Respectfully submitted,

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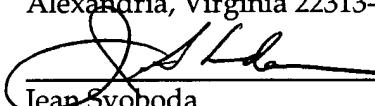
Dated: July 27, 2005

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Jean Svoboda